

**Claims**

1. An uninterruptible power supply for the backup of AC-power which converts an AC input from the AC power source into an DC power with a AC/DC converter and stores an extra electric energy into an energy storage device, and at a power interruption, converts a DC input from the energy storage device into an AC power with a DC/AC inverter and supplies the AC power to an output load, wherein the energy storage device is an electric double layer capacitor.
2. The uninterruptible power supply as set forth in claim 1, wherein a ratio of charging voltage of the electric double layer capacitor to a minimum operating voltage of the DC/AC inverter is adjusted to 1.3 times or higher.
3. The uninterruptible power supply as set forth in claim 1, wherein the charging voltage of the electric double layer capacitor is adjusted to output voltage of the AC/DC converter such that a transformer is not required.
4. The uninterruptible power supply as set forth in claim 1, having no more than 30 sec of power backup time.